

Claims

We claim:

1. A method of treating, reducing, or attenuating obesity in an individual comprising the administration of therapeutically effective amounts of calcium to an individual and inducing a metabolic change in said individual.
2. The method of claim 1, wherein said metabolic change is decreasing intracellular calcium concentrations ( $[Ca^{2+}]_i$ ), stimulating lipolysis, inhibiting lipogenesis, increasing the expression of white adipose tissue uncoupling protein 2 (UCP2), reducing serum insulin levels, thermogenesis, or decreasing the levels of calcitrophic hormones.
3. The method of claim 1, wherein said metabolic change is weight loss.
4. The method of claim 1, wherein said individual is maintained on a restricted caloric diet.
5. The method of claim 1, wherein said calcium is contained in dairy products, a dietary supplement, foodstuffs supplemented with calcium, or other foods high in calcium.
6. The method of claim 5, wherein said calcium is contained in salmon, beans, tofu, spinach, turnip greens, kale, broccoli, waffles, pancakes, pizza, milk, yogurt, cheeses, cottage cheese, ice cream, frozen yogurt, nutrient supplements, calcium fortified vitamin supplements, or liquids supplemented with calcium.
7. A method of attenuating weight gain and adiposity in children, reducing the risk of adiposity in children, or controlling weight gain in children comprising the administration of therapeutically effective amounts of calcium.
8. The method of claim 7, wherein said individual is maintained on a restricted caloric diet.
9. The method of claim 7, wherein said calcium is contained in dairy products, a dietary supplement, foodstuffs supplemented with calcium, or other foods high in calcium.

10. The method of claim 9, wherein said calcium is contained in salmon, beans, tofu, spinach, turnip greens, kale, broccoli, waffles, pancakes, pizza, milk, yogurt, cheeses, cottage cheese, ice cream, frozen yogurt, vitamin supplements, or liquids supplemented with calcium.

11. A method of diagnosis and treatment of obesity comprising the following steps:

- a. determining the weight and, optionally, the height of an individual;
- b. comparing the weight, or optionally the weight/height ratio, of the individual to established norms;
- c. optionally, classifying the obesity of the individual;
- d. optionally providing the individual with information relating to the benefits of maintaining a normal weight, or a normal weight/height ratio; and
- e. providing the individual with a dietary plan containing high levels of calcium and, optionally printed matter disclosing the obesity-control benefits of a high calcium diet.

12. The method of claim 11, further comprising providing said individual with food products containing therapeutically effective amounts of calcium.

13. A computer implemented method of diagnosing, treating, and/or monitoring obesity comprising the following steps:

- a. determining the weight and, optionally, the height of an individual and inputting these values into a computer system;
- b. optionally calculating the weight/height ratio of the individual;
- c. comparing the weight, or optionally the weight/height ratio, of the individual to established norms contained in a weight and/or weight/height database available to the computer;
- d. optionally classifying the obesity of the individual;

- e. optionally providing the individual with information relating to the benefits maintaining a normal weight, or optionally a normal weight/height ratio;
- f. providing the individual a dietary plan containing high levels of calcium and, optionally printed matter disclosing the obesity-control benefits of a high calcium diet; and
- g. optionally monitoring the progress of the individual.

14. The method of claim 13, further comprising providing said individual with dietary products containing therapeutically effective amounts of calcium.

15. A computer implemented methods of diagnosing, treating, and/or monitoring obesity over a communication network comprising the following steps:

- a. obtaining weight and, optionally, height data from an individual by input of the data on a web page;
- b. optionally calculating the weight/height ratio of the individual in a computer connected to the Internet;
- c. comparing the weight, or optionally the weight/height ratio, of the individual to established norms contained in a weight and/or weight/height database available to said computer;
- d. optionally classifying the obesity of the individual;
- e. optionally providing the individual with information relating to the benefits maintaining a normal weight, or optionally a normal weight/height ratio; and
- f. providing the individual a dietary plan containing high levels of calcium and, optionally, information regarding the obesity-control benefits of a high calcium diet.

16. The method of claim 15, further comprising providing said individual with dietary products containing therapeutically effective amounts of calcium.

17. The method of claim 15, wherein said method further comprises the verification of the inputted data.

18. An article of manufacture useful in stimulating the metabolic consumption of adipose tissue containing foodstuffs and printed materials disclosing the advantages of high calcium diets.

19. The article of manufacture of claim 18, wherein the printed materials are in the form of pamphlets.

20. The article of manufacture of claim 18, wherein printed material is embossed or imprinted on the foodstuff and indicates the amounts of calcium contained within the foodstuff, recommended levels of calcium intake necessary for the metabolically assisted loss of adipose tissue, recommended BMI values, or recommended heights and weights for individuals.

21. A method of modulating, attenuating, or decreasing obesity in an individual comprising the administration of a 1, 25-dihydroxyvitamin D (1,25-(OH)<sub>2</sub>-D) receptor antagonist.

22. The method of claim 21, wherein said antagonist comprises an antibody.

23. The method of claim 21, wherein said antagonist is a chemical compound.

24. The method of claim 21, wherein said antagonist is 1- , 25, dihydroxyvitamin D.

25. A method of modulating, attenuating, or decreasing obesity in an individual comprising the administration of a 1, 25-dihydroxyvitamin D (1,25-(OH)<sub>2</sub>-D) antagonist.

26. The method of claim 25, wherein said 1, 25-dihydroxyvitamin D (1,25-(OH)<sub>2</sub>-D) antagonist is an antibody.

27. The method of claim 25, wherein said 1, 25-dihydroxyvitamin D (1,25-(OH)<sub>2</sub>-D) antagonist is a chemical compound.

28. The method of claim 25, wherein said compound contains calcium.

29. The method of claim 25, wherein said antagonist comprises one or more soluble 1,25-(OH)<sub>2</sub>-D receptors.

30. A method for promoting the consumption of a calcium-containing product wherein said method comprises the public distribution of information describing the obesity-control benefits of said product which are attributable to the consumption of calcium in said product.

31. The method, according to claim 30, wherein said distribution of said information is achieved by a method selected from the group consisting of verbal communication, pamphlet distribution, print media, audio tapes, magnetic media, digital media, audiovisual media, billboards, advertising, newspapers, magazines, direct mailings, radio, television, electronic mail, braille, electronic media, banner ads, fiber optics, and laser light shows.

32. The method, according to claim 30, wherein said information pertains to a class of products to which said calcium-containing product belongs.

33. The method, according to claim 32, wherein said class of products is dairy products.

34. The method, according to claim 30, wherein said product is selected from the group consisting of milk, cereals, and vegetables.